



BIOFILTER PLAN
SCALE: 1"=10'-0"

BIOFILTER DESIGN CRITERIA		
INLET H2S CONCENTRATION PPM	AVERAGE	2.5
	MAXIMUM	5.0
PERCENT H2S REMOVAL		99%
TOTAL AIRFLOW (CFM)		10,000
PRETREATMENT FOR HUMIDIFICATION		IN-LINE SPRAY
LOADING RATE (CFM/SF)		2
EFFECTIVE SIZE (SF)		5,040
MEDIA DEPTH (FT)		3
NOMINAL GAS RESIDENCE TIME (SECONDS)		90

CONSTRUCTION NOTES

- ELEVATIONS SHOWN INSIDE BIOFILTER ARE LINER ELEVATIONS.
- BACKFILL MATERIAL FOR LINER ANCHOR TRENCH SHALL NOT CONTAIN ROCKS GREATER THAN 3", ANY MATERIAL WITH SHARP EDGES, OR HARD CLAY. ANCHOR TRENCH DETAILS TYPICAL FOR ALL SIDES OF BIOFILTER.
- SET ALL VALVE BOX TOPS FLUSH WITH FINAL GRADE.
- PROVIDE AND MAINTAIN EROSION CONTROL MEASURES TO PREVENT SILT FROM ENTERING AND EXITING SITE TO INCLUDE TEMPORARY SILT FENCES IN AREAS AROUND EXCAVATIONS.
- PERFORATED DRAIN LINE SHALL BE SCHEDULE 40 PVC SLOTTED WELL PIPE INSIDE THE BIOFILTER AND TRANSITION TO SCHEDULE 40 SOLID PIPE OUTSIDE THE BIOFILTER. WELL PIPE SLOTS SHALL BE 3-1/2" LONG, SPACED 1/4" APART WITH 0.12" OPENINGS. DRAIN TO PENETRATE LINER AS SHOWN IN DETAIL 2 OF SHEET 17-C-04.
- SEE PIPING SHEET C-32, C-17-03 & LANDSCAPE PLANS FOR FULL PIPING INFORMATION.
- IN THE EVENT THAT A LATERAL TEES INTO A JOINT ON THE DISTRIBUTION HEADER, CONTRACTOR IS TO MOVE TIE IN PENETRATION TO AN EDGE OF JOINT. THE LATERAL SHALL BE LAID SUCH THAT IT CONFORMS TO STANDARD CENTERLINE SPACING IN AS SHORT A DISTANCE AS IS REASONABLE, NOT OVERSTRESSING PIPE OR JOINT CONNECTION.
- CONTRACTOR SHALL WORK WITH ENGINEER/INSPECTOR FOR THE TIMING OF INSPECTION FOR LEAKAGE IN FOUL AIR PIPING. TESTING MAY HAVE TO BE DONE IN STAGES (I.E., PRIOR TO CONNECTING LATERALS, VERTICAL HEADER SECTION, HORIZONTAL HEADER SECTION).
- INCLUDE OYSTER SHELLS IN BIOFILTER MEDIA.

NOTES

- CONTRACT INCLUDES PROVIDING FOUR PORTABLE SOIL MOISTURE PROBES (TOTAL, NOT PER BIOFILTER). THE PROBES SHOULD BE ABLE TO PROVIDE RELATIVE MEASUREMENTS OF THE SOIL MOISTURE AND/OR THE PERCENTAGE OF SOIL MOISTURE (0-100%). THE SOIL METER SHALL INCLUDE A 36 INCH BRASS PROBE AND HAVE THE ABILITY TO MEASURE SOIL MOISTURE AT A VARIABLE DEPTH UP TO 36 INCHES. THE SENSING ELEMENT SHALL BE LOCATED IN THE TIP OF THE PROBE. THE MANUFACTURER SHALL BE LINCOLN SOIL MOISTURE METER (MODEL No. 77311) OR ENGINEER APPROVED EQUAL.

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. SEE ORIGINAL CONTRACT DRAWING FOR SEAL AND SIGNATURES.

ECO: LOGIC Consulting Engineers Roseville, California		G.S. DODSON & ASSOCIATES CONSULTING ENGINEERS		BRENTWOOD CITY OF		WASTEWATER TREATMENT PLANT EXPANSION PROJECT		SCALE AS SHOWN	
SUBMITTED: _____ DATE: 4/14/2000		JOB NO. 5702.90		REVISIONS		CIVIL		DRAWING NUMBER	
APPROVED: _____ DATE: 4/14/2000		DRAWN: BMW		ZONE REV. DESCRIPTION BY DATE APP.		ODOR CONTROL - INFLUENT PUMP STATION /HEADWORKS BIOFILTER - PLAN		17-C-01	
APPROVED: _____ DATE: 4/14/2000		DESIGNED: RAB/BMW						SHEET NUMBER	
APPROVED: _____ DATE: 4/14/2000		CHECKED: RAB						76 of 434	
APPROVED: _____ DATE: 4/14/2000		CHECKED: JMS/JAH							

